

International 58th Meat Industry Conference “Meat Safety and Quality: Where it goes?”

The attitudes and habits of Serbian schoolchildren to consumption of fish

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Abstract

The goal of this study was to explore attitudes and habits of Serbian schoolchildren to consumption of fish, since this consumption is not as high as recommended in most countries. The survey was conducted on a sample of 204 children from 7 to 18 years of age. The results showed a growing trend of the consumption of fish with the increasing age of respondents. Altogether, 3.48% of the children had never eaten fish.

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1. Introduction

In the contemporary world, it is imperative to develop effective behavioural traditions and many interventions to improve diet quality. Research and knowledge of food and nutrition provide the knowledge of cultural features, content and character related to one nation in some historical period. The choice of food, its classification, the method by which it is obtained, stored and served is a cultural phenomenon¹. Sorensen et al.² point out that social environment is influential in stimulating consumers' preferences in the aim of healthy quality of life. When it comes

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to food choices, public education is a method that induces long-term changes in eating habits³. According to traditions, cultures and countries, people have different beliefs about the role of food as means of promoting health. Food preferences play a central role in food choices and consumption, and can be described as general predisposition for a particular food, expressed by degree of liking⁴.

Serbian cuisine heterogenic, although turbulent historical events influenced the food that people consumed. Heavy food is an integral part of Serbian tradition and culture. Fish consumption is rare in Serbian nutrition^{5,6}. However, fish consumption is not as high as recommended in most countries⁷. European public authorities recommend two to three meals that include fish per week⁸. Altinoglou et al.⁹ discuss barriers and drivers of seafood consumption, including the challenge of convincing children to consume fish. The field of children's food choice and behaviour remains challenging and no complete solution for increasing fish liking has yet been suggested. Food promotion has an effect on children's preferences, purchase behaviour and consumption of food category as well as consumption of specific brands within food category¹⁰. The regular consumption of fish is related to a lower chance of several chronic diseases, including cardiovascular disease¹¹.

The purpose of this paper was to provide information about the fish consumption of 7-18 year old Serbian schoolchildren.

2. Methodology

The sample frame for this research consisted of schoolchildren from one primary and one high school in one Belgrade municipality in the Republic of Serbia. Convenience sampling was used and a questionnaire was distributed to all schoolchildren who agreed to participate after they had been informed about the goals of the research. A total of 204 respondents participated in this study. For further analyses, the sample was divided by age in three subgroups – respondents from primary school I group (I-IV class, and age from 7-10), and II group (V-VIII class age 11-14 years), plus high school students age 15-18 (III group). The questionnaire consisted of following groups of questions –, attitudes and habits. The questionnaire was distributed among respondents, self-administrated and collected after three days. Descriptive statistics and analysis of variance were calculated using Microsoft Office Excel Program.

3. Results

Answers to the question “Do you like to eat fish?” are shown in Fig. 1. The largest number of responses was positive, but there were at least three negative responses in all three groups of schoolchildren. Results were analyzed using analysis of variance and showed a statistically significant difference between the specified response at the 95% confidence level ($p < 0.05$). Answers to the question “What kind of fish do you usually eat?” (Fig 2) showed that there was no statistically significant difference between the amount of river fish, sea fish, salmon, seafood and canned fish at the 95% confidence interval ($p < 0.05$). However, children of all age groups consumed significantly less sea fish than other types of fish ($p < 0.05$; Fig. 2). Sea fish was the least common type of fish consumed (Fig. 2). The frequency of consumption of fish among all three examined schoolchildren groups (Table 1) showed that most of them eat fish once a week 52.24%. Together with respondents who said they consumed fish once a month, these two groups make up close to 90% (precisely 86.57%). It is interesting that among all schoolchildren, 3.48% said that they never consumed fish. Results related to the place where fish were prepared showed that most of schoolchildren consumed fish prepared at home (82.87%), while fewer of them consumed fish in fast food outlets (6.02%) or in restaurants (11.11%), all confirmed by analysis of variance.

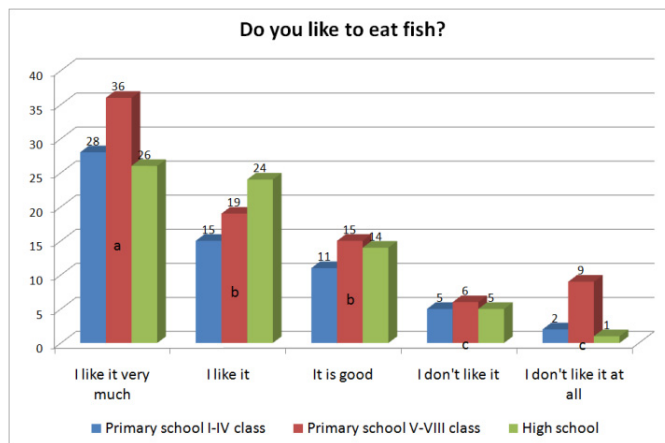


Fig. 1. a, b, c – Values with different letters are significantly different ($p \leq 0.05$).

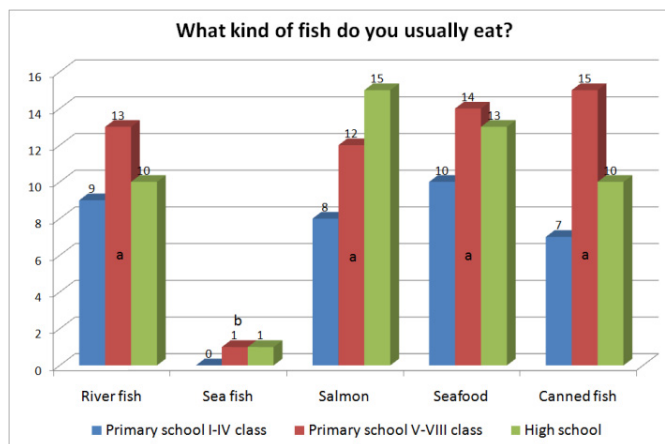


Fig. 2. a, b – Values with different letters are significantly different ($p \leq 0.05$).

Table 1. Frequency and place of fish consumption among all three groups of schoolchildren.

How often do you eat fish?	Primary school I-IV class (n)	Primary school V-VIII class (n)	High school (n)	Total (n)	Total (%)
Once per day	0	5	0	5	2.49
Once per week	35	41	29	105	52.24
Once per month	14	24	31	69	34.33
Several times a month	4	0	0	4	1.99
Periodically	2	4	5	11	5.47
Never	1	3	3	7	3.48

Do you eat fish prepared at...?

Home	55	61	63	179	82.87
Fast food restaurants	4	5	4	13	6.02
Restaurants	3	12	9	24	11.11

4. Conclusion

- Fish consumption among all three groups of examined schoolchildren is not as is recommended in most countries. European public health authorities recommend two to three fish meals per week.
- Public education of parents and schoolchildren is one way to produce better long-term results in schoolchildren's nutrition and health.
- The fact that older schoolchildren (III group) like to eat fish more than schoolchildren of I and II group is encouraging, because of the possibilities of educating them and thus supporting them to build better and healthy lives.

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